

STATE OF MISSOURI  
**DEPARTMENT OF NATURAL RESOURCES**

MISSOURI CLEAN WATER COMMISSION



**MISSOURI STATE OPERATING PERMIT**

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92<sup>nd</sup> Congress) as amended,

Permit No. MO-0110779

Owner: Integrated Services, Inc.  
Address: 75 Shady Lane, Valley Park, MO 63088

Continuing Authority: Same as above  
Address: Same as above

Facility Name: Peerless Park Demo Landfill  
Address: 75 Shady Lane, Valley Park, MO 63088

Legal Description: See page 2

Receiving Stream: Meramec River (P)  
First Classified Stream and ID: Meramec River (P)(02185)  
USGS Basin & Sub-watershed No.: (07140102-080003)

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

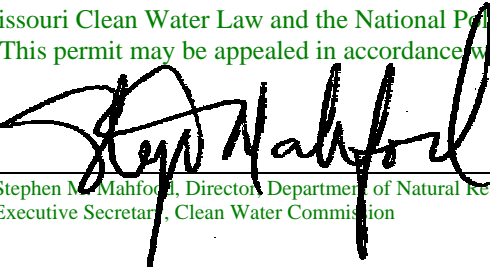
**FACILITY DESCRIPTION**

See page 2

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

August 22, 2003  
Effective Date

August 21, 2008  
Expiration Date  
MO 780-0041 (10-93)

  
Stephen M. Mahford, Director, Department of Natural Resources  
Executive Secretary, Clean Water Commission

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Jim Hull, Director of Staff, Clean Water Commission

FACILITY DESCRIPTION (continued)

Outfall #001 - This outfall is eliminated.

Outfall #002 - Landfill - SIC #4953

Stormwater runoff

Average flow is 40,000 gallons per day.

Design flow is based on 10-year, 24-hour rainfall event is 1.53 MGD

Legal Description: SE  $\frac{1}{4}$ , NW  $\frac{1}{4}$ , Sec. 19, T44N, R5E, St. Louis County

Outfall #003 - Landfill - SIC #4953

Stormwater runoff

Average flow is 30,000 gallons per day.

Design flow is based on 10-year, 24-hour rainfall event is 0.98 MGD

Legal Description: NE  $\frac{1}{4}$ , NW  $\frac{1}{4}$ , Sec. 19, T44N, R5E, St. Louis County

Outfall #004 - Landfill - SIC #4953

Stormwater runoff

Average flow is 40,000 gallons per day.

Design flow is based on 10-year, 24-hour rainfall event is 1.24 MGD

Legal Description: NE  $\frac{1}{4}$ , NW  $\frac{1}{4}$ , Sec. 19, T44N, R5E, St. Louis County

<b>A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS</b>					PAGE NUMBER 3 of 5	
					PERMIT NUMBER MO-0110779	
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfalls #002 - #004</u>						
Flow	MGD	*		*	instantaneous once/quarter** estimate	
Rainfall	inches	*		*	daily measurement	****
BETX	mg/L	0.75		0.75	once/quarter**	grab
Biochemical Oxygen Demand <sub>5</sub>	mg/L	60		45	once/quarter**	grab
Chemical Oxygen Demand	mg/L	120		90	once/quarter**	grab
Total Suspended Solids	mg/L	80		60	once/quarter**	grab
Settleable Solids	mg/L/hr	1.5		1.0	once/quarter**	grab
Total Dissolved Solids	mg/L	*		*	once/quarter**	grab
Conductivity (Specific Conductance)	umhos/cm	*		*	once/quarter**	grab
Chloride Plus Sulfates	mg/L	1000		*	once/quarter**	grab
Iron, Total Recoverable	µg/L	*		*	once/quarter**	grab
pH - Units	SU	*****		*****	once/quarter**	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>January 28, 2004</u> .						
Calcium				*	once/year	grab
Fluoride				*	once/year	grab
Total Hardness				*	once/year	grab
Barium, Total Recoverable				*	once/year	grab
Boron, Total Recoverable				*	once/year	grab
Cadmium, Total Recoverable				*	once/year	grab
Chromium, Total Recoverable				*	once/year	grab
Cobalt, Total Recoverable				*	once/year	grab
Copper, Total Recoverable				*	once/year	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>October 28, 2004</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
<b>B. STANDARD CONDITIONS</b>						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Part I</u> STANDARD CONDITIONS DATED <u>October 1, 1980</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						
<b>A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS</b>					PAGE NUMBER 4 of 5	
					PERMIT NUMBER MO-0110779	

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Sodium, Total Recoverable	mg/L	*		*	once/year	grab
Ammonia as N	mg/L	***		***	once/year	grab
Nitrate and Nitrite as N	mg/L	*		*	once/year	grab
Phosphorus, Total Recoverable	mg/L	*		*	once/year	grab
Mercury, Total Recoverable	µg/L	*		*	once/year	grab
Arsenic, Total Recoverable	µg/L	*		*	once/year	grab
Lead, Total Recoverable	µg/L	*		*	once/year	grab
Selenium, Total Recoverable	µg/L	*		*	once/year	grab
Silver, Total Recoverable	µg/L	*		*	once/year	grab
Manganese, Total Recoverable	µg/L	*		*	once/year	grab
Magnesium, Total Recoverable	µg/L	*		*	once/year	grab
Zinc, Total Recoverable	µg/L	*		*	once/year	grab
Antimony, Total Recoverable	µg/L	*		*	once/year	grab
Beryllium, Total Recoverable	µg/L	*		*	once/year	grab
Nickel, Total Recoverable	µg/L	*		*	once/year	grab
Sulfate	mg/L	*		*	once/year	grab
Thallium, Total Recoverable	µg/L	*		*	once/year	grab
Total Organic Carbon	mg/L	*		*	once/year	grab
Vanadium, Total Recoverable	µg/L	*		*	once/year	grab
Oil and Grease	mg/L	15		10	once/year	grab

MONITORING REPORTS SHALL BE SUBMITTED ANNUALLY; THE FIRST REPORT IS DUE October 28, 2004. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

## B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Part I STANDARD CONDITIONS DATED October 1, 1980, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

MO 780-0010 (8/91)

## A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- \* Monitoring requirement only.
- \*\* Sample once per quarter in the months of March, May, September, and November.
- \*\*\* The discharge shall not exceed the appropriate values in Table B 10 CSR 20, 7.031.
- \*\*\*\* Grab samples shall be collected during a rainfall event, when there is runoff from the landfill site. The sample shall be collected no later than one hour after runoff begins.
- \*\*\*\*\* pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.

### C. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
  - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
    - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
    - (2) controls any pollutant not limited in the permit.
  - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
  - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

2. Report as no-discharge when a discharge does not occur during the report period.
3. All design and operating specifications and all Solid Waste Management Program approval conditions pertaining to water quality are hereby made a part of this permit and shall apply throughout the life of the permit without regard to other conditions, permits, occurrences, etc.
4. This permit does not allow the discharge of leachate. All leachate shall be handled in accordance with the Solid Waste Disposal Operating Permit, Report of Approval of Plans and Specifications (with conditions).
5. Changes in Discharges of Toxic Substances

The permittee shall notify the Director as soon as it knows or has reason to believe:

- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
    - (1) One hundred micrograms per liter (100 µg/L);
    - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
    - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
    - (4) The level established in Part A of the permit by the Director.
  - (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.
6. All discharges shall comply with the Missouri Water Quality Standards, 10 CSR 20-7.031, Section (3)(C), which states "Waters shall be free from substance in sufficient amounts to cause unsightly color or turbidity..." and Section (4)(G), which states "Water contaminants shall not cause or contribute to turbidity or color that will cause substantial visible contact with the natural appearance of the stream..."
  7. All activities performed to control erosion on the landfill site (seeding, mulching, terracing, etc.) shall be described and submitted along with the second quarter and fourth quarter Discharge Monitoring Reports. If no erosion controls are undertaken, indicate so on the reports.



**Missouri Department of Natural Resource  
Water Pollution Control Program**

**Water Quality Review Sheet  
Determination of Effluent Limits**

**Facility Information**

FACILITY NAME: Peerless Demolition Landfill NPDES #: MO0110779

FACILITY TYPE/DESCRIPTION: Landfill, Industrial (SIC #4953)/Storm water runoff

ECOREGION: Ozark Highlands 8- DIGIT HUC: 07140102 COUNTY: St. Louis  
                     Central Irregular Plains                      Osage Plains  
                     Mississippi Alluvial Plains                      Ozark Highlands

Outfall 001-To be eliminated  
 LEGAL DESCRIPTION: NE ¼, SE ¼, NW ¼, Sec. 19, T44N, R5E LATITUDE/LONGITUDE: +38 32 41.2/-090 30 04.9

Outfall 002  
 LEGAL DESCRIPTION: SW ¼, SE ¼, NW ¼, Sec. 19, T44N, R5E LATITUDE/LONGITUDE: +38 32 22.5/-090 30 19.0

Outfall 003  
 LEGAL DESCRIPTION: SW ¼, NE ¼, NW ¼, Sec. 19, T44N, R5E LATITUDE/LONGITUDE: +38 32 40.2/-090 30 17.3

Outfall 004  
 LEGAL DESCRIPTION: SE ¼, NE ¼, NW ¼, Sec. 19, T44N, R5E LATITUDE/LONGITUDE: +38 32 39.2/-090 30 09.9

WATER QUALITY HISTORY: According to WQIS-screen 9, one stream survey conducted on 05/11/1999 and shows high levels of arsenic, chromium, copper, iron, and zinc.  
 According to WQIS-screen 10, no unresolved enforcement issues at this time.  
 According to WQIS-screen 11, the latest inspection occurred on 05/03/1994 and showed non-compliance for not meeting effluent limits based on DMRs or recent sampling (facility exceeding effluent limits for Total Recoverable Iron).  
 According to WQIS-screen 14, the Feb. 2000 DMR to report rainfall was not received. In WQIS-screen 7, it was noted that the facility had elevated levels of arsenic, aluminum, iron, and manganese during the 1999 DMRs (monitoring only requirement).

**Outfall Characteristics**

OUTFALL	DESIGN FLOW (CFS)	TREATMENT TYPE	RECEIVING WATERBODY	OTHER
001	Varies	None-storm water runoff	Abandoned sand/gravel pit	To be eliminated
002	2.37	None-storm water runoff	Tributary to Williams Creek	Flows into Meramec River
003	1.519	None-storm water runoff	Abandoned sand/gravel pit	Flows into Meramec River
004	1.922	None-storm water runoff	Abandoned sand/gravel pit	Flows into Meramec River

**Receiving Waterbody Information Outfall 002**

WATERBODY	CLASS	7Q10(CFS)	*DESIGNATED USES	OTHER CHARACTERISTICS
Tributary to Williams Creek	U	0.0		
Williams Creek	P	0.1	LWW & AQL	Flows about a ½ mile before goes into the Meramec River

\*Cool Water Fishery (CLF), Cold Water Fishery (CDF), Irrigation (IRR), Industrial (IND), Boating & Canoeing (BTG), Drinking Water Supply (DWS), Whole Body Contact Recreation (WBC), Protection of Warmwater Aquatic Life and Human Health (AQL), Livestock & Wildlife Watering (LWW)

**Receiving Waterbody Information Outfalls 003 & 004**

WATERBODY	CLASS	7Q10(CFS)	*DESIGNATED USES	OTHER CHARACTERISTICS
Unnamed Tributary to Meramec River	U	0.0		N/A
Meramec River	P	280.0	LWW, CLF, BTG, WBC, DWS, IND	N/A

\*Cool Water Fishery (CLF), Cold Water Fishery (CDF), Irrigation (IRR), Industrial (IND), Boating & Canoeing (BTG), Drinking Water Supply (DWS), Whole Body Contact Recreation (WBC), Protection of Warmwater Aquatic Life and Human Health (AQL), Livestock & Wildlife Watering (LWW)

COMMENTS: Meramec River's 7Q10 was determined from *Stream and Springflow Characteristics* to be 280 cfs at the USGS site #07019000 (Meramec River at Eureka, St. Louis County) during the period of 1922-72.

The outfall design flows were determined by the applicant according to the maximum flow based on a 10-year 24-hour rainfall event.

The landfill property consists of 52.9 acres.

## MIXING CONSIDERATIONS

### OUTFALLS 001, 002, 003, & 004

#### Mixing Zone.

None allowed due to discharge into an unclassified body of water.

#### Zone of Initial Dilution (Z.I.D.).

None allowed due to discharge into an unclassified body of water.

## Permit Limits and Information

TMDL WATERSHED:  W.L.A. STUDY CONDUCTED:  DISINFECTION REQUIRED:  DISINFECTION WAIVER:   
(Y OR N) (Y OR N) (Y OR N) (Y, N, NA)

### OUTFALLS 001, 002, 003, & 004

WET TEST (Y OR N):  FREQUENCY: NA A.E.C. NA LIMIT: NA

PARAMETER	MAXIMUM DAILY LIMIT	AVERAGE MONTHLY LIMIT	MONITORING FREQUENCY	SAMPLE TYPE
Flow	* MGD	* MGD	Once/rainfall	24 hr. estimate
Rainfall	* inches	* inches	Daily	****
BETX	0.75 mg/L	0.75 mg/L	Once/Quarter	Grab
Biochemical Oxygen Demand	60 mg/L	45 mg/L	Once/Quarter	Grab
Chemical Oxygen demand	120 mg/L	90 mg/L	Once/Quarter	Grab
Total Suspended Solids	80 mg/L	60 mg/L	Once/Quarter	Grab
Settleable solids	1.5 mg/L/hr	1.0 mg/L/hr	Once/Quarter	Grab
Chloride & Sulfates	1000 mg/L	1000 mg/L	Once/Quarter	Grab
Sulfates	* mg/L	* mg/L	Once/Quarter	Grab
pH	**	**	Once/Quarter	Grab
Oil & Grease	15 mg/L	10 mg/L	Once/Quarter	Grab
Total Kjeldahl Nitrogen	* mg/L	* mg/L	Once/Quarter	Grab
NO <sub>2</sub> + NO <sub>3</sub> as N	* mg/L	* mg/L	Once/Quarter	Grab
Ammonia as N	***** mg/L	***** mg/L	Once/Quarter	Grab
Total Phosphorous as P	* mg/L	* mg/L	Once/Quarter	Grab
Hardness (as CaCO <sub>3</sub> )	* mg/L	* mg/L	Once/Quarter	Grab
Aluminum, Total Recoverable	* µg/L	* µg/L	Once/Quarter	Grab
Arsenic, Total Recoverable	* µg/L	* µg/L	Once/Quarter	Grab
Chromium, Total Recoverable	* µg/L	* µg/L	Once/Quarter	Grab
Copper, Total Recoverable	* µg/L	* µg/L	Once/Quarter	Grab
Iron, Total Recoverable	* µg/L	* µg/L	Once/Quarter	Grab
Manganese, Total Recoverable	* µg/L	* µg/L	Once/Quarter	Grab
Zinc, Total Recoverable	* µg/L	* µg/L	Once/Quarter	Grab
Lead, Total Recoverable	* µg/L	* µg/L	Once/Year	Grab
Magnesium, Total Recoverable	* µg/L	* µg/L	Once/Year	Grab
Nickel, Total Recoverable	* µg/L	* µg/L	Once/Year	Grab
Silver, Total Recoverable	* µg/L	* µg/L	Once/Year	Grab

\* Monitoring requirement only

\*\* pH shall be maintained in the range from six to nine (6-9) standard units and is not to be averaged.

\*\*\* Fecal Coliform is to be tested from April 1 to October 31.

\*\*\*\* Grab samples shall be collected during a rainfall event, when there is runoff from the landfill site. The sample shall be collected no later than one hour after runoff begins.

\*\*\*\*\* The discharge shall not exceed the appropriate values in 10 CSR 20-7.031, Table B.

Please report the date, time, and location for each parameter sampled along with the average daily flow (actual flow measured or estimated, not design flow). All the parameters should be sampled on the same day and within no more than a 2-hour period. If dissolved oxygen (DO) is to be sampled, sampling should take place at dawn. If discharge is contingent to storm events, rainfall should be measured every time there is a discharge.

## **Receiving Water Monitoring Requirements**

No in-stream monitoring is required at this time.

## **Derivation and Discussion of Limits**

### **Outfalls 001, 002, 003, & 004:**

- **BETX**. Criterion: equal to or less than 0.75 mg/L monthly average and daily maximum as stated in existing permit.
- **Biochemical Oxygen Demand (BOD<sub>5</sub>)**. Criterion: equal to or less than 45 mg/L monthly average, 60 mg/L daily maximum as stated in existing permit.
- **Chemical Oxygen Demand**. Criterion: equal to or less than 90 mg/L monthly average, 120 mg/L daily maximum as stated in existing permit
- **Total Suspended Solids**. Criterion: equal to or less than 60 mg/L monthly average, 80 mg/L daily maximum as stated in existing permit.
- **Settleable Solids**. Criterion: equal to or less than 1.0 mg/L/hr monthly average, 1.5 mg/L/hr daily maximum as stated in existing permit.
- **Chloride plus Sulfates**. Criterion: less than or equal to 1000 mg/L sulfates plus chlorides as per 10 CSR 20-7.031, Table A-Criteria for Designated Uses.
- **pH**. Criterion: between 6 - 9 standard units as stated in the existing permit.

Reviewer: Richard J. Laux

Date: July 30, 2003

Unit Chief: Richard J. Laux